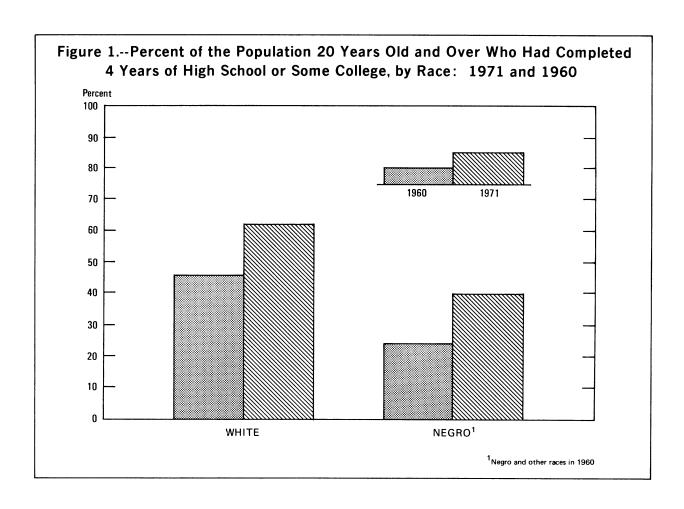


Series P-20, No. 229 December 1971

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

EDUCATIONAL ATTAINMENT: MARCH 1971



BUREAU OF THE CENSUS

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Educational Attainment: March 1971

The proportion of the adult population who had completed at least a high school education increased by 16 percentage points during the decade of the 1960's (table A). In 1960, 43 percent of all persons 20 years old and over were high school graduates. However, in 1971, of the 127 million persons 20 years old and over, 60 percent were high school graduates. Indications are that this increase is likely to continue in the 1970's. These 1971 findings are based on the March 1971 Current Population Survey conducted by the Bureau of the Census. The educational data presented in this report relate to the number of school years completed by the population and do not provide any information on the quality of the education received.

Table A. Percent of the Population 20 Years Old and Over Who Had Completed 4 Years of High School or Some College, by Race and Sex: 1971 and 1960

	1071	1000	Change, 1960 to 1971			
Race and sex	1971	1960	Percentage points	Percent		
All races. Male Female	59.7 59.5 59.8	43.3 41.7 44.7	16.4 17.8 15.1	37.9 42.7 33.8 36.1		
Male	61.6	43.8	17.8 15.0	40.6 32.0		
Negro Male Female	39.7 38.5 40.7	¹ 24.0 ¹ 22.2 ¹ 25.7	15.7 16.3 15.0	65.4 73.4 58.4		

¹Negro and other races.

The increase in the proportion of adults (20 years old and over) with at least a high school education was slightly greater for men than for women. In 1960, the women of this age were slightly more likely than the men to be high school graduates, 45 percent and 42 percent, respectively. However, in 1971, the proportions were about equal with 60 percent of both the men and women who were 20 years old and over being high school graduates.

The proportion of Negro adults who had completed at least a high school education was 40

percent in 1971 as compared with 24 percent in 1960, about a two-thirds increase. The comparable figures for whites were 62 percent and 45 percent, respectively, or a one-third increase.

Among younger persons who would have more recently completed their high school studies, those 20 to 29 years old, the proportion who had completed at least a high school education increased between 1960 and 1971 from 65 percent to 82 percent for whites and from 40 percent to 62 percent for Negroes¹ (table B).

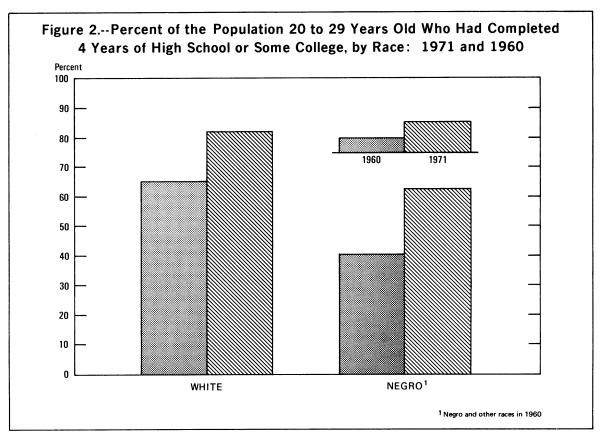
Table B. Percent of the Population 20 to 29 Years Old Who Had Completed 4 Years of High School or Some College, by Race and Sex: 1971 and 1960

						
Race and sex	1971	1960	Change, 1960 to 1971			
			Percentage points	Percent		
All races.	79.5	62.1	17.4	28.0		
Male	79.8	60.8	19.0	31.3		
Female	79.2	63.5	15.7	24.7		
White	81.7	65.2	16.5	25.3		
Male	82.4	63.8	18.6	29.2		
Female	81.0	66.4	14.6	22.0		
Negro	62.2	¹40.2	22.0	54.7		
Male	58.9	¹ 37.7	21.2	56.2		
Female	65.3	¹ 42.6	22.7	53.3		

¹ Negro and other races.

In addition, the proportion of high school graduates 20 to 24 years old who had completed some college also increased for both Negroes and whites over the past decade (table C). In March 1971, among whites of this age who had completed at least a high school education, 49 percent had completed some years of college as compared with 40 percent of the whites who were 30 to 34 years old and would have graduated from high school 10 years earlier. Among Negroes, 37 percent of the 20-to-24-year olds who were high school graduates had completed some years of college as compared with 28 percent of the 30-to-34-year olds.

¹Negro and other races in 1960.



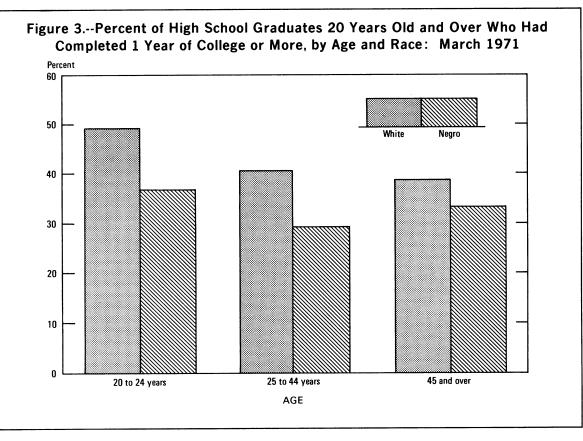


Table C. High School Graduates 20 Years Old and Over Who Had Completed 1 Year of College or More, by Age and Race: March 1971

Age	Number of hig graduates (th		Percent of high school graduates who had completed 1 year of college or more				
	White	Negro	White	Negro	Difference		
20 to 24 years old	12,055	1,298	49.2	36.7	12.5		
20 and 21 years old	4,622	531	51.9	39.0	12.9		
22 to 24 years old	7,433	767	47.5	35.1	12.4		
25 to 29 years old	9,728	860	44.4	30.2	14.2		
30 to 34 years old	7,684	665	39.8	27.8	12.0		
35 to 44 years old	13,904	965	38.2	29.0	9.2		
45 to 54 years old	13,042	625	35.4	32.8	2.6		
55 to 64 years old	8,108	274	39.2	31.4	7.8		
65 to 74 years old	3,839	123	44.3	43.9	0.4		
75 years old and over	1,853	42	43.5	(B)	(X)		

B Base less than 75,000.

Table D. Years of School Completed by Employed Males 25 to 64 Years Old, by Race: March 1971

(Numbers in thousands)

Years of school completed	All races		White	e	Negro		
rears of school completed	Number	Percent	Number	Percent	Number	Percent	
Total, 25 to 64 years old	37,852	100.0	34,265	100.0	3,171	100.0	
Not high school graduate High school graduate Some college	13,344 24,507 11,153 6,378	35.3 64.7 29.5 16.8	11,310 22,955 10,590 6,077	33.0 67.0 30.9 17.7	1,917 1,256 398 181	60.5 39.6 12.6 5.7	

EDUCATIONAL ATTAINMENT OF EMPLOYED MEN 25 TO 64 YEARS OLD

The level of education a person achieves has an impact on other aspects of his life, and this report shows some of this impact as reflected in differences in occupation, income, and mobility by the educational attainment levels of employed men, 25 to 64 years old.

There were 37.9 million employed men who were 25 to 64 years old in March 1971. Of these men, 35 percent had not completed high school, including 19 percent who had not completed any years of high school; 65 percent had completed high school, including 29 percent who had completed 1 or more years of college and 17 percent who had completed 4 or more years of college (table D).

Education and occupation. About equal proportions of these employed men worked in white-collar and in blue-collar occupations-about 44 percent in each occupational category

(table E). However, there were differences in the proportion employed in white-collar and bluecollar occupations by educational attainment levels. The men with relatively high levels of educational attainment were more likely to be working in white-collar jobs than were the men with relatively low levels of educational attainment. For example, of these men who had completed 4 or more years of college, 95 percent were in white-collar occupations, as compared with 39 percent of those who had completed a high school education only, and 12 percent of those who had not completed any years of high school. Of these men who had completed 4 or more years of college, only about 3 percent were working in blue-collar occupations, as compared with 50 percent of those who had completed high school only, and 67 percent of those who had not completed any years of high school.

Correspondingly, the men in white-collar jobs were more likely to be high school graduates than were the men working in other occupations. Of the 16.7 million men of this age group who were

X Not applicable.

employed as white-collar workers, 87 percent had completed at least a high school education, as compared with 48 percent of the 19.5 million employed as blue-collar and service workers, and 41 percent of the 1.6 million employed in farm occupations.

Of the employed men, 25 to 64 years old, who had completed some years of college, those who had completed 4 or more years of college were more likely to be working as professional, technical, and kindred workers than were those who had completed some years of college but not the full four years (table F). Both groups were about equally likely to be working as managers, officials, and proprietors. There were 6.4 million employed men, 25 to 64 years old, who had completed 4 or more years of college. Of these men, over half, 57 percent, held jobs as professional, technical, and kindred workers in An additional 27 percent were March 1971. employed as managers, officials, and proprietors. Of the 4.8 million employed men who had completed some years of college but not the full four years, 20 percent were working as professional, technical, and kindred workers and 27 percent as managers, officials, and proprietors.

Among the 26.7 million employed men who had not gone to college, the most frequent employment was as craftsmen, foremen, or kindred workers, 7.2 million (27 percent); or as operatives and kindred workers, 6.4 million (24 percent).

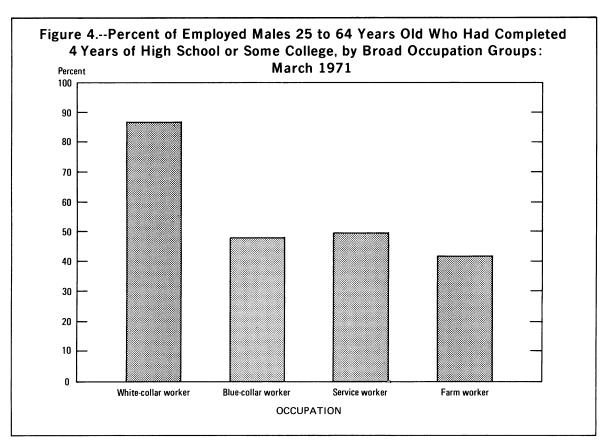
Education and income. The level of these men's income was related to their educational attainment level (table G). For example, among these employed men who had not completed any years of high school, only about 16 percent had incomes of \$10,000 or more in 1970. The percentage increased with successively higher educational attainment levels to the point where 71 percent of these men who had completed 4 or more years of college had incomes of \$10,000 or more. Among the employed Negro men, the proportion with incomes of \$10,000 or more was 4 percent for those who had not completed any years of high school and 47 percent for those who had completed 4 or more years of college. The employed white men who had completed 4 or more years of college were about four times as likely to have incomes of \$10,000 or more as were those who had not completed any years of high school. Among Negro men the corresponding ratio was about 11 to 1. However, because of the small size of the sample for Negro men, there is considerable variability in the estimate of the ratio.

Education and migration. Of the 37.9 million employed men 25 to 64 years old in March 1971, 31.9 million, or 84 percent, were still living in the same house where they lived in March 1970,

Table E. Years of School Completed by Employed Males 25 to 64 Years Old, by Broad Occupation Group:

March 1971

Years of school completed	Total	White- collar workers	Blue- collar workers	Service workers	Farm workers
Total, 25 to 64 years oldthous	37,852	16,691	16,910	2,619	1,632
PERCENT DISTRIBUTION BY OCCUPATION Total, 25 to 64 years old	100.0	44.1	44.7	6.9	4.3
Not high school graduate	100.0	16.7	66.2	9.9	7.2
High school graduate	100.0	59.0	33.0	5.3	2.7
No college	100.0	38.6	50.3	7.3	3.8
Some college	100.0	83.5	12.2	2.8	1.4
4 years or more	100.0	95.0	3.3	1.0	0.7
PERCENT DISTRIBUTION BY YEARS OF SCHOOL COMPLETED					
Total, 25 to 64 years old	100.0	100.0	100.0	100.0	100.0
Not high school graduate	35.3	13.3	52.2	50.7	58.8
High school graduate	64.7	86.6	47.8	49.4	41.2
No college	35.3	30.8	39.7	37.3	31.4
Some college	29.5	55.8	8.0	12.1	9.8
4 years or more	16.8	36.3	1.2	2.3	2.8



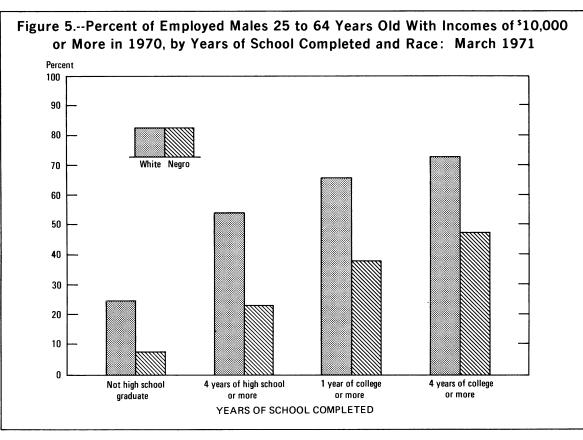


Table F.	Years of School Completed by Employed Males 25 to 64 Years Old, by Major Occupation Group:							
	March 1971							

		Elementary	High school		College	
Occupation group		0 to 8 years	1 to 3 years	4 years	1 to 3 years	4 years or more
Total employedthousands	37,852	7,188	6,156	13,354	4,775	6,378
Percent	100.0	100.0	100.0	100.0	100.0	100.0
Professional, technical, and kindred workers	15.0	0.8	1.9	6.9	19.8	57.4
Farmers and farm managers	3.2	6.3	2.6	3.3	2.0	0.6
Managers, officials, and proprietors, except farm	17.2	7.2	11.2	17.2	27.1	26.7
Clerical and kindred workers	6.1	2.7	5.8	8.4	9.1	3.5
Sales workers	5.7	1.5	3.2	6.1	12.1	7.4
Craftsmen, foremen, and kindred workers	21.2	24.7	29.5	26.8	14.9	2.3
Operatives and kindred workers	17.9	29.4	27.9	19.3	7.1	0.7
Service workers	6.9	10.7	9.0	7.3	5.4	1.0
Farm laborers and foremen	1.1	3.8	1.1	0.5	0.4	-
Laborers, except farm and mine	5.5	12.8	7.8	4.3	2.2	0.3

⁻ Represents zero.

and 5.8 million, or 15 percent, had moved to another house, including 1.9 million, or 5 percent, who had migrated from one county to another (table H). Among employed men of this age who had completed 4 or more years of college, 8 percent migrated from one county to another between March 1970 and March 1971, but among the corresponding group who were not high school graduates, only about 3 percent migrated during the year. This higher mobility for men with 4 or more years of college arises in part from the fact that they were younger than the men who had not completed high school, and younger men had a higher mobility rate than older men. instance, 7 percent of these employed men who were 25 to 44 years old migrated during the year as compared with only about 2 percent of those 45 to 64 years old. And the younger men, those 25 to 44 years old, were more likely than the older men, those 45 to 64 years old, to have completed 4 or more years of college, 20 percent and 14 percent, respectively.

RELATED REPORTS

Data on educational attainment for persons 14 years old and over in March 1959, 1962, 1964, 1965 and 1966, 1967, 1968, 1969, and 1970 were published in Current Population Reports, Series P-20, Nos. 99, 121, 138, 158, 169, 182, 194, and 207, respectively. Additional statistics on the educational attainment of persons 25 years old and over in 30 selected standard metropolitan statistical areas for 1967, 1968, and 1969 are shown in Current Population Reports, Series P-20, Nos. 209, 214, and 219, respectively. Further information on educational attainment is presented

in "Educational Change in a Generation: March 1962," Series P-20, No. 132. Data on men who are college graduates are presented in the report "Characteristics of Men With College Degrees: 1967," Series P-20, No. 201. In addition, educational attainment as determined in the Current Population Survey is related to labor force characteristics in publications of the Bureau of Labor Statistics, as in "Educational Attainment of Workers, March 1969, 1970," published in the October 1970 issue of Monthly Labor Review. Statistics on educational attainment are also available in several reports of the 1960 Census of Population, the most relevant of which is PC(2)-5B, Educational Attainment. Also, 1960 Volume I, <u>Characteristics of the Population</u>, Chapter C, "General Social and Economic Characteristics," and Chapter D, "Detailed Characteristics," acteristics," include statistics on educational attainment. Report PC(2)-1C, Nonwhite Population by Race, includes educational data for selected races.

Apart from the different dates at which the statistics were collected, the education data from the March 1971 Current Population Survey may differ from those from the 1960 census and from projections based on the census for the following reasons: (1) Members of the Armed Forces in the United States living off post or with their families on post are included in the survey, but all other members of the Armed Forces are excluded. All members of the Armed Forces in the United States are included in the census data. (2) Statistics from both the census and CPS are subject to sampling and response errors. There are differences in coverage, enumeration techniques

Table G.	Years of School Completed by Employed Males 25 to 64 Years Old, by Income in 1970 and Race:
	March 1971

Years of school completed	Total	Per	cent by inco	Percent by years of school completed		
and race	(thousands) Total		Under \$10,000	\$10,000 or more	Under \$10,000	\$10,000 or more
ALL RACES						
Total	37,852	100.0	58.6	41.4	100.0	100.0
Not high school graduate	13,344	100.0	78.1	21.9	46.9	18.7
No years of high school	7,188	100.0	84.0	16.0	27.2	7.3
High school graduate	24,507	100.0	48.0	52.0	53.0	81.3
Some college	11,153	100.0	35.9	64.1	18.1	45.6
4 years or more	6,378	100.0	29.1	70.9	8.4	28.9
WHITE						
Total	34,265	100.0	55.9	44.1	100.0	100.0
Not high school graduate	11,310	100.0	75.5	24.5	44.6	18.3
No years of high school	6,012	100.0	81.9	18.1	25.7	7.2
High school graduate	22,955	100.0	46.3	53.7	55.4	81.7
Some college	10,590	100.0	34.5	65.5	19.1	45.9
4 years or more	6,077	100.0	27.8	72.2	8.8	29.1
NEGRO	·					
Total	3,171	100.0	88.6	13.5	100.0	100.0
Not high school graduate	1,917	100.0	92.7	7.1	64.7	32.1
No years of high school	1,097	100.0	95.4	4.2	38.1	10.8
High school graduate	1,256	100.0	77.1	22.9	35.2	67.7
Some college	398	100.0	62.1	37.7	9.0	35.4
4 years or more	181	100.0	52.5	47.0	3.5	20.0

(self-enumeration versus direct enumeration), and the methods of allocating nonresponses.

The Content Evaluation Study of the 1960 census is a major source of information about the accuracy of census data on educational attainment. A comparison by detailed categories of years of school reported for each level suggests a net overreporting on years of school completed for about 6 percent of the population 25 years old and over.² A comparison of CPS with 1960 census figures shows that the CPS figures include more persons with 12 years or more of school completed and fewer with less than 12 years. If the Content Evaluation Study is taken as a standard, the 1960 census figures on educational attainment show a slight upward bias. The CPS figures are still higher than the census figures and may, therefore, be more biased in the direction of high educational attainment.

Because of the differences mentioned above, care should be exercised in comparing the data for March 1971 with those from the 1960 census.

DEFINITIONS AND EXPLANATIONS

Population coverage. The figures in this report for March 1971 are sample survey data and relate to the population of the 50 States and the District of Columbia. Inmates of institutions are included in the sample. Members of the Armed Forces living off post or with their families on post are included, but all other members of the Armed Forces are excluded.

Age. The age classification is based on the age of the person at his last birthday.

Race. The population is divided into three groups on the basis of race: white, Negro, and "other races." The last category includes Indians, Japanese, Chinese, and any other race except white and Negro.

Years of school completed. Data on years of school completed in this report were derived

² Evaluation and Research Program of the U.S. Censuses of Population and Housing, 1960: Accuracy of Data on Population Characteristics as Measured by Reinterviews, Series ER 60, No. 4, table 12.

from the combination of answers to two questions:
(a) "What is the highest grade of school he has ever attended?" and (b) "Did he finish this grade?"

The questions on educational attainment apply only to progress in "regular" schools. Such schools include graded public, private, and parochial elementary and high schools (both junior and

senior high), colleges, universities, and professional schools, whether day schools or night schools. Thus, regular schooling is that which may advance a person toward an elementary school certificate or high school diploma, or a college, university, or professional school degree. Schooling in other than regular schools was counted only if the credits obtained were regarded as transferable to a school in the regular school system.

Table H. Years of School Completed by Employed Males 25 to 64 Years Old, by Mobility Status Between March 1970 and March 1971

		Percent distribution						
Years of school completed	Total (thousands) Total			Different ho				
and age		Total	Same house (nonmovers)	Total	Different county (migrants)	Abroad at beginning of period		
Total, 25 to 64 years old	37,852	100.0	84.2	15.3	5.1	0.5		
Not high school graduate High school graduate Some college 4 years or more	13,344 24,507 11,153 6,378	100.0 100.0 100.0 100.0	86.1 83.1 81.1 79.9	13.4 16.3 18.2 19.1	6.0	0.6 0.5 0.7 1.0		

The median years of school completed is defined as the value which divides the population into two equal parts--one-half having completed more schooling and one-half having completed less schooling than the median. This median was computed after the statistics on years of school completed had been converted to a continuous series of numbers (e.g., completion of the first year of high school was treated as completion of the 9th year and the completion of the first year of college as completion of the 13th year). The persons completing a given school year were assumed to be distributed evenly within the interval from .0 to .9 of the year (for example, persons completing the 12th year were assumed to be distributed evenly between 12.0 and 12.9). In fact, at the time of the March survey, most of the enrolled persons had completed about three-fourths of a school year beyond the highest grade completed, whereas a large majority of persons who were not enrolled had not attended any part of a grade beyond the highest one completed. The effect of the assumption is to place the median for younger persons slightly below, and for older persons slightly above, the true median. Because of the inexact assumption as to the distribution within an interval, this median is more appropriately used for comparing groups and the same group at different dates than as an absolute measure of educational attainment.

 $\frac{Assignment\ of\ educational\ attainment\ for\ those}{not\ reporting.\ When\ information\ on\ either\ the}$

highest grade attended or completion of the grade was not reported in the 1971 survey, entries for the items were assigned using an edit in the computer (table I). The general procedure was to assign an entry for a person that was consistent with entries for other persons with similar characteristics. The specific technique used in the March 1971 survey was as follows:

- 1. The computer stored reported data on highest grade attended by race (white and all other) and age, and on completion of the grade by age and highest grade attended, for persons 14 years old and over in the population.
- 2. Each stored value was retained in the computer only until a succeeding person having the same characteristics (e.g., same race and age, in the case of assignments for highest grade attended) and having the item reported, was processed through the computer. Then the reported data for the succeeding person were stored in place of the one previously stored.
- 3. When one or both of the education items for a person 14 years old and over was not reported, the entry assigned to this person was that stored for the last person who had the same characteristics.

Metropolitan-nonmetropolitan residence. The population residing in standard metropolitan statistical areas (SMSA's) constitutes the metropolitan population. Except in New England, an

	All races			White			Negro and other races					
Highest year of school completed	Allocated		Allocated		Total			Negro				
	Total		Percent	Total	N b o m	Percent	Total	Allocated		Total	Allocated	
		Mumber	Percent		Number	rercent	_	Number	Percent	Iotai	1 1	Percent
Total, 14 years old and												
over	150,459	707	0.5	133,633	589	0.4	16,826	118	0.7	15,216	104	0.7
o school years completed	1,538	7	0.4	1,143	5	0.4	395	2	0.5	329	1	0.3
lementary: 1 to 7 years	16,818	82	0.5	13,178	54	0.4	3,639	27	0.8	3,447	26	0.8
8 y ears	19,306	100	0.5	17,326	87	0.5	1,979	14	0.7	1,821	12	0.6
ligh school: 1 to 3 years	32,338	158	0.5	27,686	122	0.4	4,653	36	0.8	4,378	33	0.7
4 years	48,614	211	0.4	44,535	185	0.4	4,080	25	0.6	3,611	23	0.6
College: 1 to 3 years	17,563	75	0.4	16,270	64	0.4	1,293	11	0.9	1,099		0.8
4 years	9,027	44	0.5	8,519	41	0.5	508	2	0.5	371	2	0.4
5 years or more.	5,255	31	0.6	4,975	30	0.6	280	1	0.3	162	-	-

Table I. Number and Percent of Allocations for Nonresponse on Highest Year of School Completed by Persons 14 Years Old and Over, by Race: March 1971

SMSA is a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined population of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties are included in an SMSA if, according to certain criteria, they are essentially metropolitan in character and are socially and economically integrated with the central city. In New England, SMSA's consist of towns and cities, rather than counties. The metropolitan population in this report is based on SMSA's as defined in the 1960 census and does not include any subsequent additions or changes.

The population inside SMSA's is further classified as "in central cities" and "outside central cities." With a few exceptions, central cities are determined according to the following criteria:

- 1. The largest city in an $\ensuremath{\mathsf{SMSA}}$ is always a central city.
- 2. One or two additional cities may be secondary central cities on the basis and in the order of the following criteria:
 - a. The additional city or cities have at least 250,000 inhabitants.
 - b. The additional city or cities have a population of one-third or more of that of the largest city and a minimum population of 25,000.

<u>Farm-nonfarm residence</u>. The farm population refers to rural residents living on farms. The method of determining farm-nonfarm residence in the Current Population Surveys since March 1960 is the same as that used in the 1960 census but differs from that used in earlier censuses.

The nonfarm population, as the term is used here, comprises persons living in urban areas and rural persons not on farms.

According to the current definition, the farm population consists of all persons living in rural territory on places of less than 10 acres yielding agricultural products which sold for \$250 or more in the previous year, or on places of 10 acres or more yielding agricultural products which sold for \$50 or more in the previous year. Rural persons in institutions, motels, and tourist camps, and those living on rented places where no land is used for farming, are not classified as farm population.

Geographic regions. The four major regions of the United States, for which data are presented in this report, represent groups of States, as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

North Central: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

<u>West</u>: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, Alaska, and Hawaii.

Mobility status. The population of the United States has been classified according to mobility status on the basis of a comparison between the place of residence of each individual at the survey date and the place of residence one year earlier.

In the classification on mobility status, three main categories are distinguished:

⁻ Represents zero.

- 1. <u>Nonmovers</u>. This group consists of persons who are living in the same house at the end of the period as at the beginning of the period.
- 2. <u>Movers</u>. This group consists of all persons who were living in a different house in the United States at the end of the period than at the beginning of the period.
- 3. <u>Persons abroad</u>. This group consists of persons, either citizens or aliens, whose place of residence was outside the United States at the beginning of the period, that is, in an outlying area under the jurisdiction of the United States or a foreign country.

Movers are subdivided in terms of type of mobility into the following two major groups--(1) those living in the "same county" and (2) "migrants" or those living in a "different county" at the end than at the beginning of the period. Migrants are further classified as living in the same State as their previous residence or in a different State.

Employed. Employed persons comprise those civilians who, during the survey week, were either (1) "at work"—those who did any work for pay or profit, or worked without pay for 15 hours or more on a family farm or business; or (2) "with a job but not at work"—those who did not work and were not looking for work but had a job or business from which they were temporarily absent because of vacation, illness, industrial dispute, or bad weather, or because they were taking the week off for various other reasons.

Occupation. Data on occupation are shown for the employed and relate to the job held during the survey week. Persons employed at two or more jobs were reported in the job at which they worked the greatest number of hours during the week. The major groups used here are mainly the major groups used in the 1960 Census of Population. The composition of these groups is shown in 1960 Census of Population, Volume I, Characteristics of the Population, Part 1, United States Summary.

Data are shown for 4 broad occupational groups (white-collar workers, blue-collar workers, service workers, and farm workers), which represent combinations of the 10 major groups. All persons engaged directly in agricultural production are classified as farm workers in this report. This included farm proprietors, managers, foremen, The nonagricultural group is and laborers. subdivided into three groups. The white-collar group includes professional workers, proprietors, managers, and sales and clerical workers. The blue-collar group includes craftsmen, machine operatives, and laborers (other than farm); and the service category includes private household workers and other service workers.

For each person in the sample 14 Income. years old and over, questions were asked on the amount of money income received in 1970 from (1) money wages or salary, (2) net income from self-employment and (3) other income. Wage or salary income in 1970 is defined as the total money earnings received for work performed as an employee during the calendar year 1970. includes wages, salary, Armed Forces pay, commissions, tips, piece-rate payments, and cash bonuses earned, before deductions were made for taxes, bonds, pensions, union dues, etc. Net income from self-employment is defined as net money income (gross receipts minus operating expenses) from a business, partnership, professional enterprise, or farm in which the person was engaged in his own account. Other money income includes money income received from the following sources: (1) Social Security, veterans' payments, or other government or private pensions; (2) interest (on bonds or savings), dividends, and income from annuities, estates, or trust; (3) net income from boarders or lodgers, or from renting property to others; (4) all other sources such as unemployment benefits, public assistance, alimony, etc.

The amounts received represent income before deductions for personal taxes, Social Security, bonds, etc. It should be noted that although the income statistics refer to receipts during 1970, the characteristics of the person, such as age, labor force status, and occupation, and the characteristics and composition of the family refer to March 1971. Income of farm persons does not include income "in kind" such as the value of farm produce consumed at home, or rental value of the home they own. Furthermore, the cost of living is generally higher in urban areas, requiring higher incomes to maintain a similar level of living.

Rounding of estimates. Individual figures are rounded to the nearest thousand without being adjusted to group totals, which are independently rounded. Percentages are based on the unrounded absolute numbers.

SOURCE AND RELIABILITY OF THE ESTIMATES

Source of data. The estimates for 1971 are based on data obtained in March 1971 in the Current Population Survey of the Bureau of the Census. Data for 1960 are based on results of the Census of Population for that year.

The current sample design, which was initiated in January 1967, encompasses 449 areas consisting of 863 counties and independent cities with coverage in each of the 50 States and the District of Columbia. Approximately 50,000 occupied housing units are designated for interview each

month. Of this number, an average of 2,250 occupied units are visited but interviews are not obtained because the occupants are not found at home after repeated calls or are unavailable for some other reason. In addition to the 50,000 there are also about 8,500 sample units in an average month which are visited but are found to be vacant or otherwise not to be enumerated.

The estimation procedure used in this survey involved the inflation of the weighted sample results to independent estimates of the civilian noninstitutional population of the United States by age, race, and sex. These independent estimates were based on statistics from the 1960 Census of Population; statistics of births, deaths, immigration, and emigration; and statistics on the strength of the Armed Forces.

Reliability of the estimates. Estimates which are based on a sample may differ somewhat from the figures which would have been obtained from a complete census, using the same schedules, instructions, and enumerators. Care should be exercised in the interpretation of figures based on a relatively small number of sample cases as well as small differences between estimates. As is the case with any survey work, the results are subject to errors of response and of reporting as well as being subject to sampling variability.

The standard error is primarily a measure of sampling variability; that is, of the variations that occur by chance because a sample rather than the entire population is surveyed. As calculated for this report, the standard error partially measures the effect of response and interviewer errors but does not measure any systematic biases in the data. The chances are about 68 out of 100 that an estimate from the survey differs from a complete census figure by less than the standard error. The chances are about 90 out of 100 that this difference would be less than 1.6 times the standard error, and chances are 95 out of 100 that the difference would be less than twice the standard error. All statements of comparison appearing in the text are significant at a 1.6 standard error level or better and most are significant at a level of more than 2.0 standard This means that for most differences cited in the text, the estimated difference is greater than twice the standard error of the difference. Statements of comparison qualified in some way (e.g., by the use of the phrase "some evidence") have a level of significance between 1.6 and 2.0 standard errors.

The figures presented in tables J, K, L and M are approximations to the standard errors of various estimates shown in this report. In order

to derive standard errors that will be applicable to a wide variety of items and could be prepared at a moderate cost a number of approximations were required. As a result, the tables of standard errors provide an indication of the order of magnitude of the standard errors rather than the precise standard error for any specific item. Tables J and K contain the standard errors of the estimated numbers.

Table J. Standard Errors of Estimated Numbers, Total or White Population

Size of estimate	Standard error	Size of estimate	Standard error		
25,000 50,000 100,000 250,000 500,000 1,000,000 2,500,000	7,100 10,200 14,400 22,400 30,000 45,000 70,800	5,000,000 10,000,000. 25,000,000. 50,000,000. 100,000,000 125,000,000	100,000 138,000 204,000 253,000 221,000 109,000		

Table K. Standard Errors of Estimated Numbers, Negro and Other Races

Size of estimate	Standard	Size of	Standard		
	error	estimate	error		
10,000 25,000 35,000 50,000 75,000	5,300 8,300 10,000 11,800 14,400 16,600	·	26,200 36,700 51,000 76,000 96,000 96,000		

The reliability of an estimated percentage, computed by using sample data for both numerator and denominator, depends upon both the size of the percentage and the size of the total upon which the percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more. Tables L and M contain the standard errors.

Illustration of the use of tables of standard errors. Table D of this report indicates that there were 13,344,000 employed males between 25 and 64 years old who were not high school graduates. Table J shows that the standard error on an estimate of this size is about 153,000. The chances are 68 out of 100 that an estimate would have shown a figure differing from a complete census figure by less than 153,000. The chances

are 95 out of 100 that the estimate would have shown a figure differing from a complete census figure by less than 306,000 (twice the standard error).

Of these 13,344,000 males, 21.9 percent had income in 1970 of \$10,000 or more. Table L shows that the standard error of 21.9 percent on

a base of 13,344,000 is approximately 0.5 percent. Consequently chances are 68 out of 100 that the estimated 21.9 percent would be within 0.5 percentage points of a complete census figure, and chances are 95 out of 100 that the estimate would be within 1.0 percentage point of a complete census figure, i.e., this 95 percent confidence interval would range from 20.9 to 22.9 percent.

Table L. Standard Errors of Estimated Percentages, Total or White Population

Estimated percentage	Base of percentage (thousands)									
	100	250	500	1,000	2,500	5,000	10,000	25,000	50,000	100,000
2 or 98	2.0 3.1 4.3 6.2 7.2	1.3 2.0 2.8 4.0 4.5	0.9 1.4 1.9 2.8 3.2	0.6 1.0 1.4 2.0 2.3	0.4 0.6 0.9 1.2 1.4	0.3 0.4 0.6 0.9	0.2 0.3 0.4 0.6	0.1 0.2 0.3 0.4 0.5	0.1 0.1 0.2 0.3	0.1 0.1 0.1 0.2

Table M. Standard Errors of Estimated Percentages, Negro and Other Races

Estimated percentage	Base of percentage (thousands)									
	50	100	25 0	500	1,000	2,500	5,000	10,000		
2 or 98	3.3	2.3	1.5	1.0	0.7	0.5	0.3	0.2		
5 or 95	5.2	3.6	2.3	1.6	1.2	0.7	0.5	0.4		
10 or 90	7.1	5.0	3.2	2.2	1.6	1.0	0.7	0.5		
25 or 75	10.2	7.2	4.6	3.2	2.3	1.4	1.0	0.7		
50	11.8	8.4	5.3	3.7	2.6	1.7	1.2	0.8		